

PROPHET



Army Program (ACAT TBD)

Total Number of Systems	
Prophet Ground:	7 (of total 67)
Prophet Air:	72
Prophet Control:	14
Total Program Cost (TY\$):	\$3.2B
Average Unit Cost (TY\$):	TBD
Full-rate production	
Prophet Ground:	2QFY01
Prophet Air:	2QFY08
Prophet Control:	2QFY08

Prime Contractor

Prophet Ground: Delfin Systems, Inc. (first 7 only)
Prophet Air: pending competition
Phropet Control: pending competition

SYSTEM DESCRIPTION & CONTRIBUTION TO JOINT VISION 2010

The Prophet System consists of Prophet Air, Control, and Ground subsystems. The System is a suite of division-level signal intelligence/electronic warfare (SIGINT/EW) sensor and jamming subsystems that operate at or below the collateral SECRET security level. The Prophet-Control element will have the capability to co-locate with and interface with Sensitive Compartmented Information elements such as Analysis and Control Elements or the Special-Purpose Built Systems. Prophet's primary mission will be to electronically map radio frequency emitters on the battlefield that operate between 20 MHz (High Frequency)) and 2,000 MHz (Super High Frequency). Electronic mapping is defined as detecting, identifying, locating, and tracking all radio frequency emitters operating within sensor line-of-sight and hearability (detectable range), and graphically depicting the emitter's Electronic Target Indicators. The Electronic Target Indicators/electronic mapping supports nodal analysis and

correlation with other intelligence inputs at the Division's Analysis and Control Elements SIGINT section and the Common Ground Stations at the Brigade's Analysis Control Teams. The Prophet mission includes: protecting the Global Positioning System (GPS) (GPS Protect) on the battlefield; detecting intrusive or false GPS signals (GPS Detect); and attacking (GPS Attack) the opposing force's GPS capability. The Prophet System will also have the capability to select specific emitters/nodes for more accurate geographic location (Electronic Attack) or performing tactical voice exploitation. The Prophet System has the capability to cross-cue other Intelligence and Electronic Warfare (IEW) and non-IEW sensors.

The Prophet System is the Division and Armored Cavalry Regiment commanders' principal SIGINT/EW system. It provides electronic support and preprocesses the Division's and Armored Cavalry Regiment's SIGINT collection data. Prophet supports Force XXI and Army After Next concepts by providing the commanders with greatly enhanced situation awareness throughout their areas of operation. Prophet also provides the tactical commander with an enhanced capability for intelligence preparation of the battlefield, battlespace visualization, target development, and force protection throughout the division's and Armored Cavalry Regiment's doctrinal width and depth as defined in Army XXI. Prophet will provide non-lethal "electronic fires" (signals jamming) through its Electronic Attack sub-system and provide the commanders with an organic Navigation Warfare capability.

Prophet will feed the Division's and the Armored Cavalry Regiment's Analysis and Control Elements within the All Source Analysis System (ASAS) umbrella. It also feeds the subordinate commanders' Analysis Control Teams' Common Ground Stations and/or the All Source Analysis System Remote Work Stations, providing digital information in near real-time to the Common Operating Picture. The forward deployed Prophet Ground's major mission is to provide force protection directly to the supported maneuver commanders. The force protection is based upon the Prophet Ground's ability to provide timely opposing-force voice activity reports. When appropriate, the Prophet Control can also provide force protection to the supported units.

Prophet, when fielded, will contribute to *Joint Vision 2010* by providing situation awareness force protection in support of *dominant maneuver*, and support target development and conduct electronic attack (jamming) in support of *precision engagement*.

BACKGROUND INFORMATION

The concept for the Prophet program was initiated in 1998, following unfavorable results from DT and Combined DT/OT of the Intelligence and Electronic Warfare Common Sensor (IEWCS) program. IEWCS consisted of three Army systems: (1) the Army Ground-Based Common Sensor-Light (GBCS-L); (2) the Army Ground-Based Common Sensor-Heavy (GBCS-H); and (3) the Army Advanced Quick Fix (AQF). The collective operation of GBCS-L, GBCS-H, and AQF was designed to support Army divisions with signal detection, identification, location, and jamming (a growth capability). It was also supposed to provide nominal geo-location accuracy using time-difference of arrival techniques when operating with a baseline of three or more systems and a degree of accuracy suitable for targeting when using differential Doppler techniques involving a combination of AQF and ground-based platforms.

The emerging test results from GBCS-L combined DT/OT found the system to be neither effective nor suitable. Geo-location accuracy and reliability were not achieved during earlier DT and fell short of users requirements. The system could not be fully tested against threat targets in all frequency bands due to antennae calibration limitations encountered prior to the tests and software problems

encountered during the tests. For the third time, the system was deemed not ready to undergo an Initial Operational Test and Evaluation. This caused the Army portion of IEWCS to be discontinued and led to a congressional request for an audit of IEWCS by the DoD Inspector General.

The DoD Inspector General's findings stated that the program was not managed efficiently or effectively. As a result: (1) IEWCS spent nine years in the engineering, manufacturing, and development phase; (2) the Army spent \$902 million on development and procurement; and (3) the Government accepted seven limited-procurement urgent Ground Based Common Sensor-light systems that never passed initial operational test and evaluation (and planned to accept five more systems upon production close out.)

These findings forced the Army to rethink its tactical SIGINT strategy that resulted in Prophet. The Army's first step in this transition is Prophet Ground Block I. Block I replaces the Army's aging tactical SIGINT legacy system's Teammate Trailblazer with electronic attack Trafficjam.

TEST & EVALUATION ACTIVITY

The Prophet Test Integrated Product Team is developing the Prophet TEMP. The test and evaluation strategy is based on the program plan in the draft Acquisition Strategy Report. Prophet Ground Block I will be the first segment to participate in OT in late FY00.

TEST & EVALUATION ASSESSMENT

Based on past test experience with the Intelligence and Electronic Warfare Common Sensor program, the Prophet operational testing needs to take place in a more dynamic and realistic environment than in a static developmental testing range configuration. DOT&E will work to have operational testing conducted as part of the field training exercises at Army Combat Training Centers.

